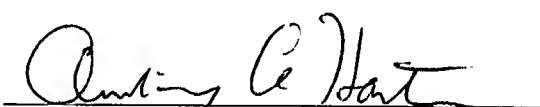


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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) 10175.0005-00000	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ Signature _____ Typed or printed name _____		Application Number 10/584,509	Filed May 22, 2007
		First Named Inventor Gianbattista Grasselli	
		Art Unit 1742	Examiner YI, Stella Kim
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <p><input type="checkbox"/> applicant/inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.</p> <p><input checked="" type="checkbox"/> attorney or agent of record. Registration number 43,662</p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</p> <p> Signature Anthony A. Hartmann Typed or printed name 202.408.4275 Telephone number July 1, 2011 Date</p> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>			

☐ *Total of _____ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Claims 36-64, 66, 67, and 71 are rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent Application Publication No. 2003/0059613 to Tirelli et al. ("Tirelli") in view of Japan Patent Application No. JP 2000-106041 to Otani et al. ("Otani") and International Application Publication No. WO 02/47092 to Belli et al. ("Belli"). Office Action at 2-10. Applicants respectfully disagree and traverse this rejection for at least the following reasons.

The claims are directed to a process for manufacturing a self-extinguishing cable comprising an expanded flame retardant polymeric material comprising (a) at least one expandable polymer, (b) at least one expanding agent, and (c) 120-200 parts by weight of at least one flame-retardant inorganic filler, wherein the material has an expansion degree of 20% to 50%. Claim 71 further limits the range to 30% to 50%. Heretofore, it was not believed possible to obtain an expansion degree greater than 20% when using 120 parts or more of filler and, at the same time, to maintain a polymeric material with the mechanical characteristics suitable for application in a cable. See Application-as-filed at 2-4. Applicants discovered a process whereby this combination is achievable.

A. Tirelli, Otani, and Belli, Fail to Teach or Suggest a Process With Each and Every Limitation in Applicants' Independent Claims

To establish a *prima facie* case of obviousness, the Office bears the burden to establish that the prior art references teach or suggest all the claim limitations. See *In re Royka*, 490 F.2d 981, 983, 180 U.S.P.Q. 580, 583 (C.C.P.A. 1974). Applicants respectfully submit that the Examiner has not met his burden.

The Office admits that Tirelli "is silent to at least one expanding agent blended with 100 parts by weight of a flame-retardant filler," and relies on Otani to compensate for Tirelli's deficiencies. Office Action at 3. The Office argues that Otani teaches "a degree of expansion of 7-15% is ideal . . . [Otani] does not exclude teaching . . . the

degree of expansion above 15% . . . [and] teaches in embodiments 2 and 5 that a degree of expansion of 20% and 18% respectively, is obtained with the filler amount being **5-200 parts by weight.**” Office Action at 11 (emphasis added).

While Otani teaches broad ranges for amount of filler and degree of expansion, it neither teaches nor suggests that compositions with the full range of filler can achieve the higher degrees of expansion of 20 to 50%. Rather, like Applicants’ specification disclosure of the prior art, Otani teaches that high degrees of expansion are achieved with lower levels of filler. In particular, embodiments 2 and 5 of Otani, upon which the Office relies, were obtained with filler amounts of **100 and 50 parts by weight**, respectively and, thus, do **not** fall within the scope of Applicants’ claimed filler amount of **120-200 parts by weight** with respect to the polymer. See *e.g.*, claim 30. That embodiments 2 and 5 of Otani have filler amounts lower than that claimed is not trivial. In fact, of the three examples in Table 1 that have filler amounts in the claimed range of 120-200 parts by weight with respect to 100 parts by weight of the polymer, **none shows a foaming rate higher than 7%.** See Otani at 28-29 (embodiments 3, 6, 7). Thus, contrary to the Examiner’s position, the combination of references fail to teach or suggest “at least one coating” that comprises “at least one flame-retardant inorganic filler in an amount of 120 parts by weight to 200 parts by weight with respect to 100 parts by weight of the polymer” **with** “the expanded flame retardant polymeric material [having] an expansion degree of 20% to 50%,” let alone a process to obtain that coating.

Accordingly, the Examiner has failed to establish that the cited references teach or suggest all the claim limitations.

B. Tirelli, Otani, and Belli, Fail to Teach or Suggest a Process With Each and Every Limitation in Applicants' Claim 71

Applicants respectfully submit that neither Tirelli, Otani, nor Belli teach or suggest a process wherein the expanded material has an expansion degree of 30% to 50%, as recited in claim 71. As acknowledged by the Office, Tirelli is silent regarding expansion rates, and thus, relies on Otani. However, Otani teaches "foaming rates of 5 to 20% and, ideally, at 7 to 15%." Otani at 11. And, Belli fails to teach or suggest a foaming rate at all. Accordingly, Tirelli, Otani, and Belli all fail to teach the limitations of instant claim 71.

C. There is no Motivation to Modify the Teachings of Otani to Achieve the Claimed Foaming Rates of Claim 71.

As an initial point, Otani expressly teaches against amounts in excess of 20%. Otani explains that "if the sheath foaming rate exceeds 20%, the tensile strength thereof falls below the **required** strength" and that "the tear load at this foaming rate is too low and the **prescribed** physical characteristics **cannot be produced**." Otani at ¶¶ [0009], [0014] (emphasis added). Hence, not only would a person of ordinary skill in the art reasonable expect **failure** from such a modification, Otani's invention would be rendered unsatisfactory of its intended purpose. See M.P.E.P. § 2143.01("If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.")

The Office tries to argue that:

The addition of the said foaming agent in the non-halogen flame-retarding sheath (coating) provides sufficient tensile strength so that tear nature can be improved, handling nature and workability can be raised, and fire retardancy made into a standard can be secured [0016].

(Office Action at 11-12). The Examiner's statement evidences a misunderstanding of the technology behind Otani. Improving tensile strength does not improve the tear nature of a composition. Rather, there is a reverse relationship (low tensile strength is easier to tear). Nevertheless, as noted by Otani and cited above, at foaming rates exceeding 20%, the tensile strength is no longer sufficient, the tear nature is too low, and the physical characteristics that provide improved handling and workability cannot be achieved. See Otani at ¶¶ [0009], [0014] (emphasis added). Hence, even the Examiner's expressed motivational bases do not apply when the expansion degree exceeds 20%.

With respect to the Office's reference to fire retardancy as a motivation to combine Otani (Office Action at 11-12), the Office has either misunderstood or mischaracterized the art. There is no teaching or suggestion in Otani, Tirelli or Belli that the presence of a foaming agent has any bearing upon improved fire retardancy. Rather, Paragraph [0016] of Otani (pointed out by the Examiner) simply discusses that the fire retardant benefits of the filler (which Tirelli already has) are not lost. However, if the Examiner is aware of any evidence to suggest that a foaming agent has an effect on fire retardancy, then Applicants respectfully point out that "[i]f the examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding. See 37 CFR 1.104(d)(2)." M.P.E.P. § 2144.03(C) (emphasis added).

At least for these reasons, the Examiner has failed to establish a *prima facie* case of obviousness of dependent claim 71.